

## Amendments to the Specification

Please delete the paragraph on page 1, lines 9-15.

Please replace the paragraphs on page 7, line 20 through page 8, line 15, with the following new paragraph.

The present invention describes improvements to the Perlin Noise function. These improvements: *(i)* improve the appearance of Perlin Noise, greatly reducing artifacts that were present in the original version, and *(ii)* allow for an efficient implementation at gate-level hardware, thereby facilitating performance improvement by a factor of 1000 over the software implementation now in common use.